65 1.1 1.9 3.2 (41) 5.3 ...

1.05 3.0-2.2 6.54

5/5

Electric Lamps & Bread ...

Name the Inventor, Inventor ...

1.05 Ja ...

dorsal tufts. Venter dark gray with a black median interrupted line. Body gently densely clothed with 2d hair. Ter. vents almost obsolete, some of the larger ones persisting black. (i, ii, iii and vi visible the latter double) Lg plates dark.

[Sex hd from corr 6.4]
Hd 5.5± Black, lun. VI dyffed piece, side pieces & median suture whitish; mouth pale, all covered with soft white 2d hairs. Rounded, rather large, not retracted. Body cuirassy transversely streaked with whitish & red-brown. There is a rather broad shaded blackish band below the spiracles, relieved by a series of whitish intersegs. patches below, otherwise grading into the dark venter mottled with black & light red. Each side of the median black patch above the 5s lun ~~out~~ the marks are transverse except a narrow brown black broken superstig line which cuts them. The ground color is whitish, shading into bright

Calc. 1.05 1.5 2.2 3.2 4.5 6.5 sat. 7.0
Found 1.05 3.0-2 5.5-6.4

brown & with about 6 transverse streaks of brown black, obscured, more distinct intersegs. They become clouded in a dark brown shade centrally & are relieved by a sd orange trans. band on post third of each seg. 4-12 — a rather conspicuous marking* on the lower ~~seg~~ the young adult ~~4 trans~~ is a dark red shade obscured parallels the longitudinal superstig. line. C-th velvet black with two white streaks below it. Anal plates black, 12 heavily clouded with blackish. The feet reddish and dark with a bright whitish streak down the outer side. Hair soft, fine white, tufted d. & s-v. centrally in the segs. Warts absent, hairs 2d. No perceptible enlargement below c-th. 12 not enlarged. * Defined before by darker brown: an anterior dark brown and patch.

These trans. markings are produced by a gemina of short dark thorn 2d hairs in 4 trans lines over dessen & a broken blackish d. & ad shading on the ground of the original orange red transd band

The short brown hairs are stiff, thick walled tube, smooth, with pointed conical ends. The long white hairs are more slender, colorless, thin walled, smooth or slightly roughened toward the ends with short lanceolate points, gently tapering to the tip. The short hairs undivided at terminal third, tapering a little toward base, minutely granular roughened just before the tip. (If the larvae be roughly handled the long hairs remain but the short ones come out in a fine velvet in the fingers & adhere strongly — a slight irritation) Length short hairs .4–.6 mm, white 3–6 mm

Egg. Egg shaped, one end blunt, rounded the other conical pointed, slightly flattened above & below. Shine White, very slightly shiny, a small round yellowish translucent spot in the center of each flattened side. (The long end has been eaten by all the

Cocoon. Thin, almost paper, of a dark brown silk, single but quite some loose silk outside. Elliptical less definite than Clesiocampa, the ends thinner for emergence. 35 x 15 mm

Larvae so can not tell of any microscopic marking) L. 18, w. 1.5, through flattened side 1.4 (greatest width in first segs). Shell minutely rugulose ½ in. obj. but without warts. Laid in irregular clumps without any covering. Larvae eat shell often hatched more than Hd. of larva still on the shell 1+ mm!

Pupa Robust, the abdomen large, thicker than the thorax, slightly curved ventrally, the anal end rounded, pilose, without cremaster. 3 muscular incisures viz. 4-5 5-6 6-7th abd. segs. (joints 8-9 9-10 (10-11), the other incisures before abd. seg 8 distinct but fixed. Spiracles very distinct, on abd segs 2 to 8. Cases smooth, compact, giving unites, the joins marked by darker lines, leg cases reach to end of 3d abd, wing cases to middle of 4th, antennae cases opposite end of 2d abd. Heads thorax are pilose, abd. less distinctly so, cases smooth. Color light reddish brown, incisures, spiracles & antennae darker. L. 25 W. 10 mm

Bred by Mrs Slosson. She says it is Eudemia crassinervella Zell (Mieza ignipix Wlk) Smith's list no 5178.

4/11/96

576

Sent by Mrs Slosson from Punta Sonda, Fla "everywhere on a prickly shrub" with small leaves "spinning down by a thread." Feb 17 96

Flattened, thick, head small, retractile but large, 12 slightly enlarged basally, shape of Harrisina and Nola but more flexible, suggesting cocoon in soft s-v region; fast very soft short, of normal number.

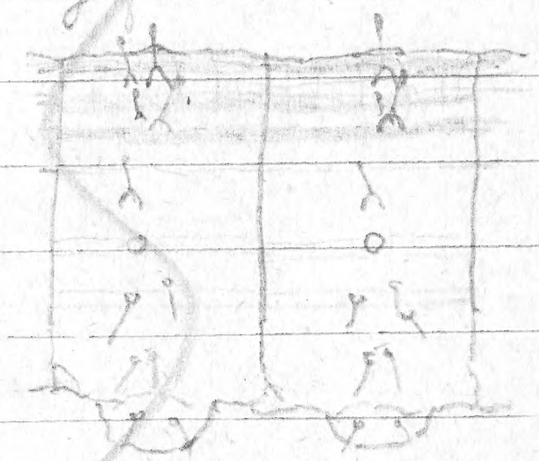
i & ii approximate in line trac, iii single, iv & v approximate but by no means consolidated iv a little above v, vi double. Also an extra seta at i or ii or between them or absent, clearly secondary and extremely variable, in only a few segs. A soft (evertible) cotulec space above vi on foot segments. Subfimbria present on 3-4, vi double (see alcohol)

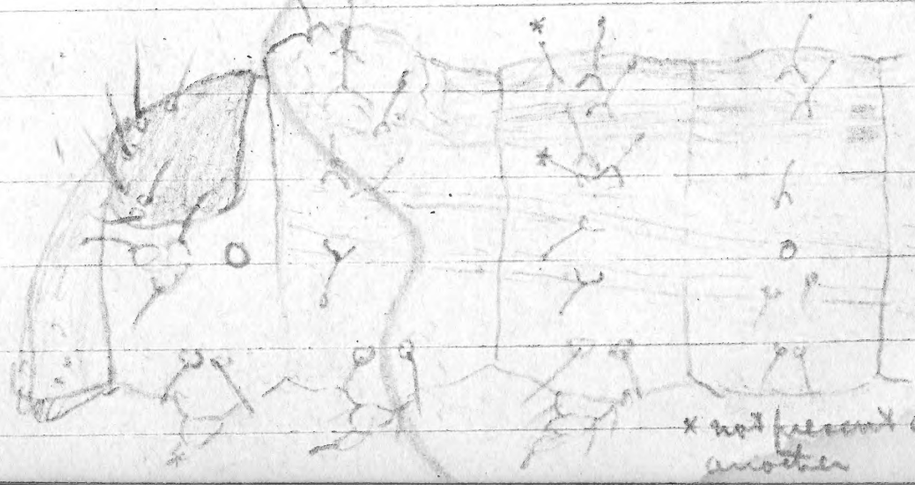
C-Sh large black; hd black the sutures pale labrum white.

Dorsum broadly black center, a narrow white d. line, a broader pale orange ad-d. line, darker orange ad the slightly

Inoc Apr. 4 1896, Cat. no. 12082

elevated tubercles i-ii especially on 3, 12 and 13, a narrow white s-d. line. Lateral region colorless, a broad white lateral line above iii edging the black dorsum, a narrow white stig. and s-v. line. Spiracles round, yellowish. Setae short, pale, slightly curved at tip. Length 8-9 mm, w. hd 1.3±; anal plate whitish, slightly marked with black. vii in leg, no plate. Spin finely watery granular, marks before skin a little holes in a half circle in the hind side





× not present in another

small slender pale green larva spinning a web and uniting by the edges into a house the young tender leaves of Crocodile flowering. Setae pale obscure but apparently normal for Intricata. I've seen winted but I don't not positively distinguish 2 setae. Tentacle concolorous. Pupated between 2 leaves.

Drops March 13 Catalog. 12057

a Intricata.

Calc.	.32	.49	.75	1.13	1.7	2.6	cat. .66
Found	.3	.45	.55	.65	.75	1.7	2.4 =

Hyb. in IV

Mar 18 1897

Callimorpha fulvicosta larva after hibernation from Mr. J. D. Walker Stretton Ind. Recd. May 2 1896 Hdc. 1.6, 1.6, 1.75 (Sh 1.7 mm) Black, d line, sd fork, dorsally broad, subdig fainter, sv. trace yellow lines nine w. less white spotted. Hd & anal shiny. Hair short black. Like next stage but rather duller, and none with d. line red spotted. Egally the same.

Hdc 2.1–2.3 (Shm 2.4, 2.7) Hd & anal shiny black latter flecked. Bod. dorsally black; d. line broad straight, narrowly broken in incisure & center of seg. yellow, darker yellow or red in center of seg, faint on 2. Trace of sd band, broken by ii, obliteration, mottled. Lateral band broad, indented by iii and iv broken into 3 or 4 seg. spots by transverse black lines, yellow, irregularly stained with darker yellow; connected below by mottling and dots with a narrow sub-

stg. line between iv and v, broken, mottled yellow. Traces of a s-v line between v & vi on base of each leg. Leg plate black. Venter broadly pale grey blackish dotted. Hair very short, inconspicuous, black or black & white, stiff, pointed, not tufted.

Spinning (May) web of fine white silk perforated

May 12. Imago June 8 1896

Egg (infertile ♀) ⅔ of spherical, possibly a trace conical, base flat, smooth, shining darkish yellow, ⌀ 1.6 mm. Retculation obscure, visible by strong reflected light, very narrow lines, irregularly 6 agonal, the cell areas flat, uniform, no shadows.

Got more a few fertile, hatched July 1 1896

Head high bilobed, lobes blackish brown, ∆ pale, with trans. w. 3 mm. Body pale yellowish white with

dusky patches hair short, stiff, white. Feet pale.

Only one hair seen on side aspt of 13 and there may be only 4 hairs on anal pl. (not fully studied, see alcohol) Setae normal, vi absent or very small. Spiracles large slender to 4.5 mm the tubes becoming surrounded by brown marking.

Moult July 7 Hd black, shiny, ∆ whitish, jaws brown, w. .45. Body whitish, warts rather small, with shield deep shining black, hair not numerous short, with black. A wide space between i & spots d. lat. warts and a narrow edge with hair more distinct s.d., but no continuous marks. S-v frains pale

Moult July 14 Hd shiny black ∆ and mouth brown w. .5 w. .53 warts large black, hairs short black, few black on both. Body long, broad, shiny between ii & iii fading into smoky black also iii & a band. Below iii to v another pale band marked with yellow. Annulets & tubercles behind iv, 2 pa 2 dg. S-v brown shaded. Leg plate black. Later appears big brown patch, hinged, narrow s.d. (ii) pale bands; supra & substig confined bands; upper yellow spotted also joined to a broken s-v band behind v. This is the appearance the bands being not clearly defined. (Stalked 5.0)

Moult July 22 Hd .65 w. Black, a broad diffused dusky line joining a narrow s.d. Lat ii-iv yellow spotted, joining supstig gray band and s-v shades same as before. Warts black, hair short stiff.

Moult Aug 3 Hd .75 Black, pale white d. s.d. and substig lines and faint. Right yellow supastig line, not perceptibly joined to substig. Do not see any s-v pale marks. Warts black. Hairs Aug 13

a very yellow lot
with twice red
warts.

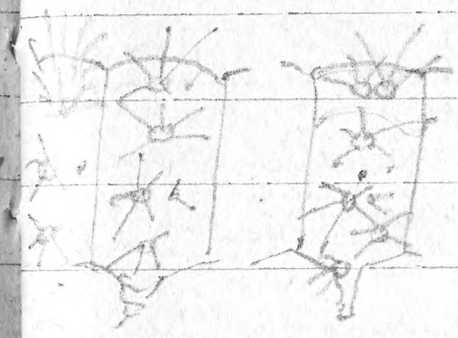
579

Dr Behr's Oeggia on Ceanothus from Alameda Santa Cruz Mt. Cal. Eggs in wool. Hatched May 7 '96
Hd. black, body dark, whitish d. on 3-4 and 9-11, warts black, hair abundant black simple, all as usual. Ate willow
Moult May 9 Black, no tufts nor pencils. Whitish d patches 3-4 and 9, red retractile warts. Square ear-marked Oeggia
May 14 Black 3 whitish tufts. Warts large, red, tub-red. Pencils on 2 & 12, 3-4 9 d. Pale all as usual. Hd 1.2
Moult May 16 Tufts all bigger Black 3 whitish warts large, red, yellow sd & s.s broken yellow lines. Dorsum yellow streaked mostly 3-4. Trace lat. line around iii [Hd 2.1
Moult May 20 Tufts all alike gray along crest Pencil on 2 preceded by a gray tuft. 3 lateral broken yellow line, warts red. Hd 2.7 ±
V-d May 22 (Shd 1.6) Hd 2.2 ± Black 3 whitish tufts. V-e May 28 (Shd 2.5) Hd 3.5 tufts white

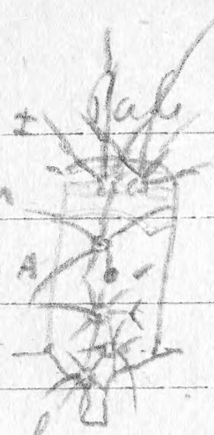
.25 .35 .5 .7 1.0 1.4 mat.) Calc.
.3 .5 .7 1.0
(B 525)

May 13 1898

580 = 525



Pale green, varied s d and straight d. narrow, whitish lines. Warts pale hair white thick, a few stylus glands when tipped. No secondary hair. Spin spend with watery granular. A median dorsal? alveole behind spiracle. 7 Hds. 5 mm (See BB 529 of which this may be the young stage) On young leaves of a weed. Clusters, opposite lanceolate serrate leaves, reddish stem, Van Cortlandt Park, N.Y. May 8 1896 Eupatorium sessilifolium
May 12 Hd 7 Pale, eye black mouth brown. Proj as before, but a broad whitish band s d along i-ii. Tubercles whitish, hair stiff white, rather long. No line visible iv+v. The tubach via spiracle has a single short but distinct seta with swollen tip, the one behind iv+v has seta as before. In ♂ pale tipped yellowish dorsally. In another line the same but yellowish. Have rather thin whitish hair 1.2 mm

Hd 1.0 ×  pale yellowish green, ocelli black. Body shaded with dark brown. Sd & stg bands whitish teeth along opercule. d. & narrow lateral as before. Hair long, white rather abundant. No secondary. Hair 3½ mm long (above drawn). Head scarcely retracted; evidently less than 582

Inverness June 3 1896

On joints 5 & 6 vii upper seta curved up; on j 7 on feet, vii of 3 setae  viii alike on 5-7.

Inverness June 16 Platynereis scabra.

Cat. no: 12185 581

Little slender green Nereid on golden and Washington Height May 17 1896. Ate white rock. Slender, feet absent on 7, anal on 8, green, a sd & stg whitish line, d vessel dark. Setae long & fine, blackish. Hd bilobed, pointed brownish, w. .6 mm.

Wolf May 19 Hd 1 mm shiny green. Body no wider than hd yet 11 mm long, slender and feet remote, penultimate. Green, slightly whitish; d. vessel dark. A narrow whitish sd & stg. line. Feet as before. Setae long, rather coarse, dusky, from distinct green tubercles, i-vi normal for Nereidae.

Wolf May 21 Hd 1.4 Green & high. D vessel white edged. S-d & stg narrow white line, s & color more yellowish. Wolf feed on 7, on 8 (or about) pelise. Setae long blackish.

Wolf May 25 Hd 1.9 Yellow white. Same. Anal feet divergent all claspers pink. Very long and slender. D. vessel distinct. Stg. line much lighter than s-d, both linear. White edging to d vessel, obscure fading off into ground color. Skin thin. May 29 markings all faded out to d. Length 20 mm.

Amoy June 3 1896

May 13 1898

also on common weight golden rod (?) but rare.

582

Larva on smooth leafy goldenrod, Vancouver Park, Wy. May 18 1896

Hair grassy, glandular, smaller at tip even to eye and often also along the shaft. A few short 2° glandular hairs s-v. Green, semi transparent, no marks, tracheal lines faintly by transparency, d. vessel darker, a row of minute d. impressed black dot 5-11. Head faintly brownish, retracted at apex. Mandibles discolored, owing to brown rings at the base of the teeth. Hair thick, sordid whitish, sparse, 1 mm also dusky. Head, 7 mm. O glands in 9 yellowish not pronounced. L 18 mm Hd .5 Same Hd .4 Brown, blackish in patches. Same hair shorter; more dusky. Bod more whitish.

Pupa May 23 By cremaster; thorax oblique, front and rounded, head angulated with coarse tubercles, wing sheaths green, the hair fuscous, slightly tinged with brown. Green, hairs the hair fuscous and scanty glandular at apex. Rows of fine hairs on the cases. A white patch d. on 4-5. Abd. segs obtuse uniform; no winged elevation. L 8 mm

Calc	.34	.48	.69	.98	1.4	2.0	7/10
Found	.3	.4		.8	1.3	2.0	
Calc	.24	.47		.79	1.3	2.2	6/10

583

Eggs on Verbena said by Mr. Bautenmüller to be Cramboides talidiformis, Fox Lee N. J. May 24 1896. Egg cylindrical, rounded at apex but tapering very little, flat at base; strongly vertically ribbed, the ribs coarse and few (20) about 1 in 3 conspicuously not attaining vertex — with ½ inch, thin, sharp edged ridge, scarcely waved by the thin and lower transverse ridges. Whitish with vertical red dot and ring. Diameter .5 mm, height .4

Stage I Setae normal, vi absent; leg plate distinct. Feet normal but 2 anal pairs short & unequal. Corpus — Head faintly brownish ocelli black, w. 3 mm. Body scarcely setae & tubercles black distinct (wolfbrown?) Hd whitish with lutean tint. Labrum pruinose. A V-shaped dusky band on A & a parallel one each side beside a few marks around ocelli; w. 4 mm.

feet on 7-8 week, in 9-10 & 13 days. 12
enlarged & setae stiff black underneath
long & vi normal, tubercle small.
Each prem closely handled with fine leg.
standard double bands, ordered, 5d(ii),
lateral, anfenety(iii). [It is a pale stg
leaden] sub-lateral (above) and lower
1 foot forward handed

[illegible] 30 Hd 8 same. A distinct white
[illegible]
[illegible] Hd. 1.3 mm prem, a blackish line
[illegible] a
[illegible] Nothing except [illegible]
[illegible] a narrow white & black [illegible]
[illegible] a
[illegible]

[illegible] a [illegible] line [illegible] stg [illegible]
[illegible] line, [illegible] stg [illegible]
[illegible] 4 Hd 2 [illegible]
[illegible] 1 [illegible] 5d
[illegible] line, [illegible] stg [illegible]
[illegible] tubercle
[illegible] tubercle [illegible]
[illegible] 1 [illegible] 5d [illegible]
[illegible]

Aerotaxis stremellai Dyar
n.sp. Feb 1908

584

Imported in lichen (Cf Portland p 309)
[illegible] 3 leaflets [illegible]
leaf and [illegible] a [illegible]
[illegible] they are [illegible], in [illegible]
a dark leaf and [illegible] in spring [illegible]
[illegible] green [illegible]
[illegible] slender [illegible]
black and black [illegible]
[illegible] slightly [illegible]
[illegible]

also a very [illegible] ♀ on 3 Hd 1.4 [illegible]
dark brown [illegible] with [illegible]
[illegible] end of large brown, a conspicuous
small [illegible] black. [illegible]
[illegible] clear [illegible] on line.
Larger ordinal brown. [illegible]
[illegible] 3 specimens Gloucester [illegible] May
1908.

585

[illegible] on base and [illegible] [illegible] 2 [illegible]
long [illegible] specimen
[illegible] equal
a [illegible] off. [illegible]
[illegible] elongated [illegible]
on [illegible]. [illegible]
[illegible] from ♀ on 5 and ♂ on [illegible]
[illegible] 8 and ♀ on 6 [illegible]
than the other [illegible] [illegible] Feet
on 10 & 13. [illegible] in [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] on 9 [illegible]
[illegible] attached with [illegible]
[illegible] (Insifter [illegible] [illegible]). [illegible]
[illegible]
[illegible] very slight [illegible] of [illegible]
[illegible] of [illegible] [illegible]
[illegible] 1896 [illegible] 12/68
[illegible] for [illegible]

Mammatia bifa Pontoppid. on mucous membrane
Malaisia. Pulo Lee N.E. Mercy, 21 1896.
Step II? no black. all green with the
faint yellow side spot. (from memory)
Last step, not full, rounded, Δ ¾ length
lobes indented, broad; yellow, shaded
to a darker tone by patches of pale
chromatophores confluent into; 7 medially
black patches in a water each lobe,
each side a lobe eyes, behind eyes
bordered by their pseudocels. W 2.8 ±
Drawn bright fluid white bordering
yellow below, black, ending thickly
in middle surface, some a few
yellow vitelline globules sd. a row of
d and superatg. velvety black
patches, d 3 – 5 & 7 for exp. lobes
a broad band transversely between
& spots the most irregular and less
broad than the lateral one. Mantle

black, Fore half of pos. and anterior
lobe translucent green or leaf colour
black. The posterior post. dorsal, thoracic
not colour. Upper side black,
blue rather distinct, [illegible]
in setting part. Plate of [illegible], not
unified, [illegible] lap plate on the mid
outside of the T. normal.
Wide 5, third side ventral. To green. Not
"side spot" which I mean in step II must
not been just-step, a the broad yellow
and is more distinctly yellow-stain.
Inspected June 22 / 896
[illegible]

and all pale [illegible] to [illegible] Pupa [illegible]
white [illegible] passes projecting in a [illegible] like [illegible],
all [illegible] with [illegible] black patches down the back.
[illegible] June 19 1896 [illegible] no. 1201

587 *[illegible] purpurigera*

[illegible] 8475 in [illegible] 6|19|96 Fort
Lee, N.J. May 30 1896. [illegible], [illegible]
~~[illegible]~~ [illegible] ocelli, w. 1.5 ±
[illegible] enlarged on segs. 5, 6, 7, 12
[illegible] on [illegible] segs., [illegible]
[illegible], [illegible] in [illegible]
[illegible] more than in the [illegible]
[illegible] very [illegible]
[illegible] white
in the [illegible] trans.
bands. [illegible] the white [illegible]
[illegible], [illegible]
at the [illegible] cut
[illegible] segs. 5-8 [illegible] band obliquely divided
between I and II, the [illegible]
[illegible] the [illegible] white patch [illegible]
[illegible] segs. [illegible]
a [illegible] Feet [illegible]
[illegible] 7, 10 & 13 [illegible] III [illegible]
[illegible] shiny black [illegible] for [illegible]
Setae [illegible], VII [illegible] (5-8)
[illegible], rather [illegible]

Calc. .54 .90 1.0 2.5 4.1 [illegible]
5 9 1.5 2.5

588 = 553 [illegible] 1/16

[illegible] on willow Fort Lee N.J. May 30 1896
[illegible]
[illegible] black, [illegible] 1.1 [illegible] .7 [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible] ocelli [illegible]
[illegible]
[illegible] shining [illegible]
[illegible] white
[illegible] Claws [illegible]. Setae [illegible]
1.1 and [illegible] II and VI
in [illegible] double, IIb not [illegible]. [illegible]
[illegible] 6-7
[illegible] darker
[illegible] light red [illegible]
white, [illegible] no [illegible]

(Hal.d. 9)
[illegible] Hd. 8 in antenna [illegible], all red [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] yellowish dot. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] 3-5 [illegible] - 10 [illegible] [illegible] [illegible] [illegible] yellow [illegible] in 3 [illegible]. [illegible] 8-11 [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] 11-12 [illegible] [illegible] [illegible]

Not June 12 [illegible] [illegible] [illegible] the [illegible] at first [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] dotted [illegible] or [illegible]. [illegible] [illegible] the [illegible] with a [illegible] yellow

[illegible]

[illegible] [illegible] [illegible] the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] and [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] and [illegible] [illegible] [illegible]. [illegible] with [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] stage. [illegible] 2-5 [illegible] and [illegible] all [illegible] [illegible] [illegible] [illegible] June 8 to 13. [illegible] [illegible] [illegible] [illegible] [illegible]

Washington, D.C. _____ 189__

Hesperid larvae to 590 (1896)

Head rounded triangular, green ---- 331*

Head rounded cordate, dark.

One red spot on each side

proteus 156*

tityrus 182 = 314*

tityrus 171*

Three yellow spots on each side

On oak .... Cal. 327, N.Y. 589.

No yellow spots

Cervical shield present, dark

Pile dark, a mealy white

patch ventrally on 11 & 12

Blackish purple --- 386

Pale, shaded fiery red ... 544

Pile pale

Body pale

On Alternanthera, Fla. 159*

On Malva, Cal. --- 141

2 crimson, body coppery red

On Desmodium N.Y. - 224

On Hoxadaia, Cal. ... 280

No cervical shield nor anal plate

Pale, whitish s-d line

On lupine, Cal. ---- 298

On willow, Cal. --- 282

On poplar & willow, N.Y.

227 = 458

*bred

327 = 589 --- probably = Nisoniades juvenalis

386 ------ " =

544 ------ " =

141 ------ " = Pholisora catullus

224 = 280 ---- " = Eudamus proteus

298 = 282 = 227. " = Nisoniades icelus

Bale .85 1.2 1.8 2.5 3.6 4 9

Washington D.C. 189

[illegible]

Cat July 7 1896

Vibiriodes juvenalis ♂
cat no 12256

589 = 327

[illegible] June 7 1896. Head large, as wide as thorax, [illegible] palpus [illegible] & dentate, [illegible] from base [illegible] separated, [illegible] white and 3 dark [illegible] on each side [illegible] 1 [illegible] and [illegible], 2 [illegible] white behind [illegible] 2 [illegible] stand [illegible] 2.5 [illegible] of white [illegible] with [illegible] white [illegible] a [illegible] right [illegible] narrow white [illegible] [illegible] June 14 [illegible] brick-brown with [illegible] brown [illegible] looking at posterior end [illegible] 2 to 4; [illegible] white, 3 large [illegible] [illegible] the other are [illegible] the place [illegible] slightly elongated and not [illegible] [illegible] with a row of [illegible] [illegible] [illegible], 2 [illegible] [illegible]; [illegible] anal [illegible] performs. The other three [illegible] white with large [illegible]

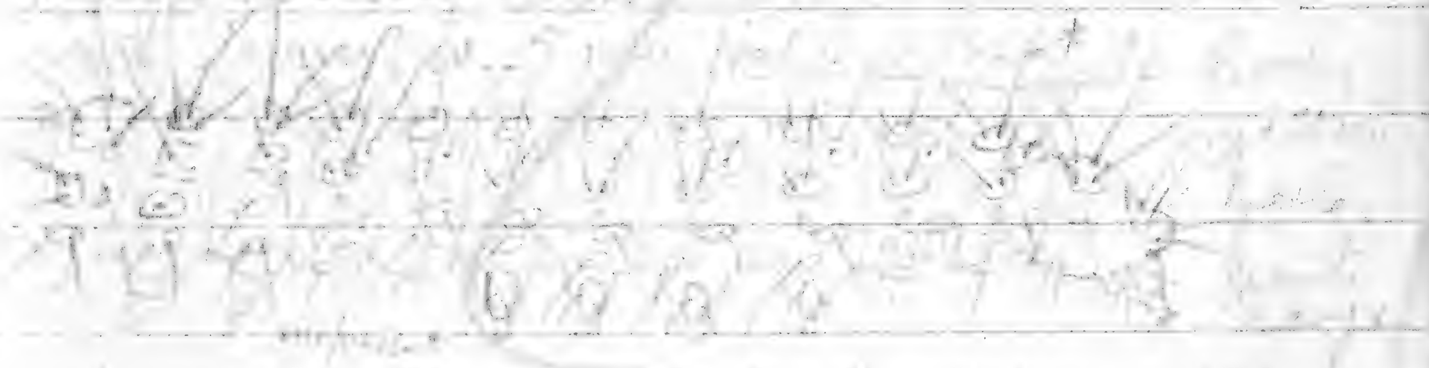
Calc .35 .50 .72 1.0 1.47 2.1 ×2/10
Found .5 .7 1.0 1.5 2±

590

34
Euchaetes [illegible] on Asclepias [illegible]
N.J. June 10 1896. (Described by Edwards).
Hd. 2 [illegible] white, orange [illegible] in the
sutures, ocelli smoky. Body orange red,
a shade paler than head, immaculate.
Warts small, very black, the hair brushes
composed of short [illegible] hair [illegible]
[illegible] centrally compact and
[illegible] the body, short,
[illegible] (1½-2 mm), [illegible] on 3 and 4 longer,
on 2 about twice as long, on 3 three
times as long as the others [illegible]
[illegible] black [illegible].
[illegible] i-vi normal, iv [illegible]
[illegible] all smaller than v. [illegible]
[illegible] and plate reduced, [illegible]
[illegible] smaller [illegible]
[illegible] tending to be [illegible], considerably reduced.
Orange [illegible] the same [illegible]
[illegible] and smaller [illegible]

[illegible]

[illegible]
[illegible] (1-1½) [illegible]
[illegible] [illegible] having appearing
especially [illegible].
[illegible] 1.0 [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
(Probably the Euchaetes [illegible])
[illegible] 1½ 6 [illegible]
[illegible]
[illegible]
[illegible] very obscure, [illegible]
[illegible]



[illegible]

[illegible] H[illegible] 11

[illegible]

[illegible]

[illegible]

July 26 1897

593

[illegible]

594

[illegible]

12243 88561

Quite from stalls, cocoons of the red, one of these cocoons we called (elliptic, form indicator but a little in green like those for elliptic

12242 Wind at blue windows, of form generate.

Noted by Miss Newton first on 1916

Effect not also some crossing of form eq.

[illegible]

[illegible] 570 [illegible]

[illegible]

11	15	
12	15	
9	15 only	
10	15 "	
11	15 "	
12	15 "	
1	22 only	
2	22 "	
10	25 only	
11	25 "	
12	25 "	

[illegible]

21	6.5 only	
22	"	
23	"	
24	7.0 only	
25	"	
26	7.5 "	Testing the [illegible]
27	7.3 "	
28	[illegible]	
10	15 only	
11	15 "	
12	15 only	
1	15 "	
2	15 "	
10	25 only	
11	25 "	
12	25 "	

May 24 1897 [illegible] which is [illegible] and gave a [illegible] that [illegible] would not have fell [illegible] of [illegible] tray, dried in a [illegible] oven [illegible] spherical but [illegible] [illegible] having opaque white with a very slight yellowish tint. Retrograde from and small [illegible] shape [illegible] opaque [illegible] pebbles or [illegible] [illegible] opaque light when the rate [illegible] [illegible] minutes. D. 8 mm H. 7 mm

$60^\circ = 2\pi/6$

.6 .24 .34 .49 .7 1.0 1.4 [illegible]
.2 .35 .6 .61 1.2 1.4

C April 1903

III

[illegible] when only ① is used.

[illegible]

Quiet June 12 1877 Harrison Crockerham
and Nov. 12 1770

[illegible]

602 = 242 = 9

[illegible]

599 VII Shed units all day to (Just

Aug	7	8	ending	like tow formed in wind).
"	8	10	"	Shedding proportion
"	9	"	"	flowers as in mature
"	10	11	"	1, 2, 3 & 5 horns curve
"	11	10	to shed	back 7 & 8 formed
"	12	10.5	big hide	10th from ensemble from
"	13	"	cat	above very robust.
"	14	12.5	"	
"	15	"	big cat	
"	16	12.2	cat	

Clothing of horns same modified
fine hairs 2th from tips, esp along
and edges of long horns. Coarse
stiff hairs have also present,
about as before on the Pleasant
Prairie and on short horns, on the
long horns naturally reduced in
number & converted into long
pale setae, irregularly spaced
esp. on tines tip, esp. on side
② unit pedicel base tip & dense
circle of stiff hairs. Brown, s & v
edge white. Horn darker, in pedicel
very broad up middle of earlier
fracture on Pleasant Prairie. The long
white hairs are on first, edge of
horn away from the greatest no
of fine brown bracketed hairs.
Shed tips all light white horn,
dense, in marks. Spiral torsion absent

Branch, [illegible] except for a few blunt clusters of minute hairs in the long branches. Setae ii of Long (1) from a lateral cone, bulbous & bearing a few long-blade spines. (2) were found, but all the simple, setae from lateral cone. Stalk (1) & lateral pieces cones found mixed 2° fine branches long-horn seen but less simple hairs. Head 20 indented & at the long pole branches clot tipped and blade clot tipped (∴ long pole 6 kinds)

Aug 17 13 stage
" 19 13.5 hatched

Aug 24 20
Aug 31

Hatched Aug 22 Last stage

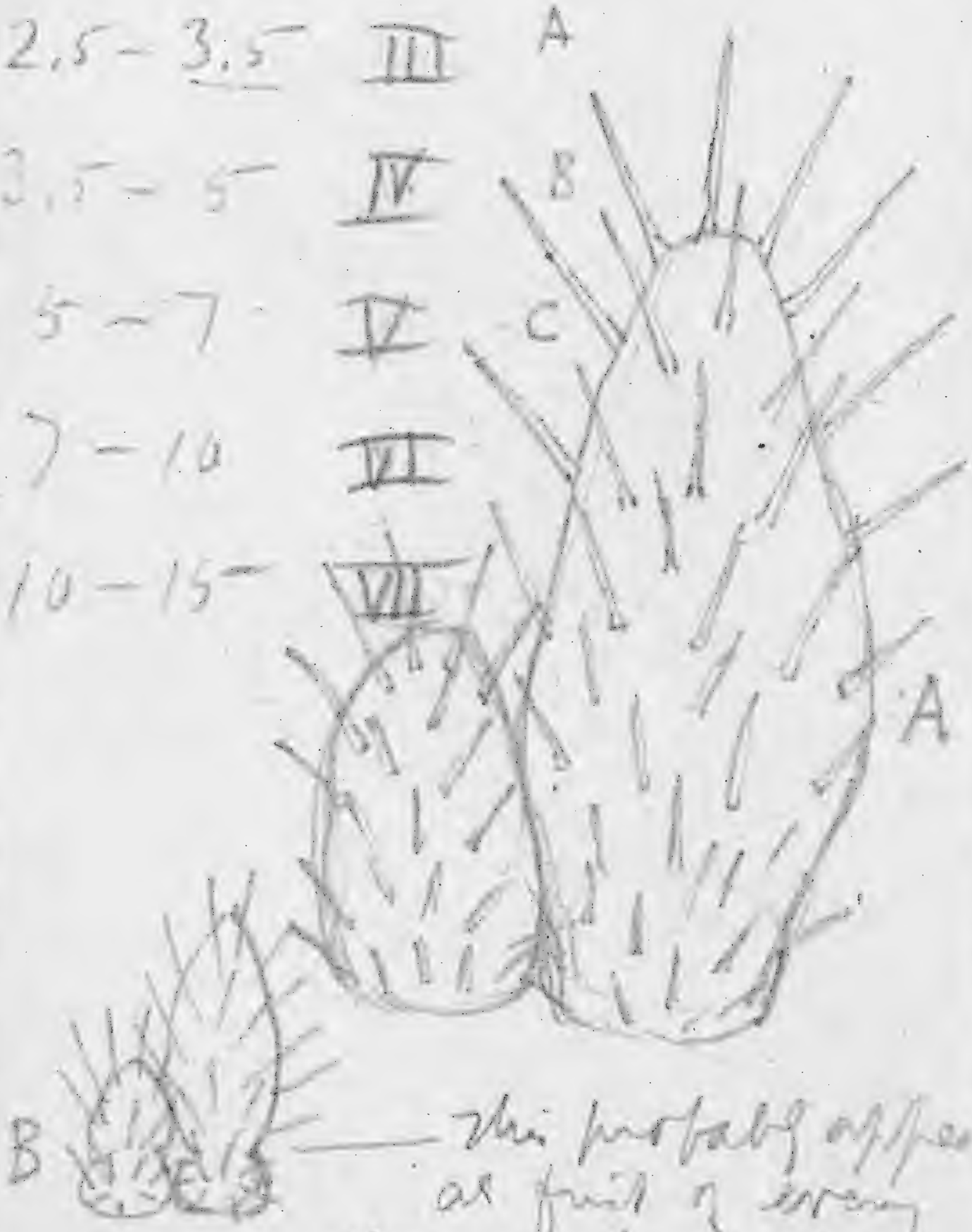
Phoxichilidium femoratum Stage I
Park July 28 1896

×35

Stage I

calc

1.2–1.7	I	599
1.7–2.5	II	"
2.5–3.5	III	A
3.5–5	IV	B
5–7	V	C
7–10	VI	
10–15	VII	



— this probably appears as fruit of every stage and remains [illegible] later

Fund I, Stage 2) 599 Beckhart St.) July 21 189-

IV

III

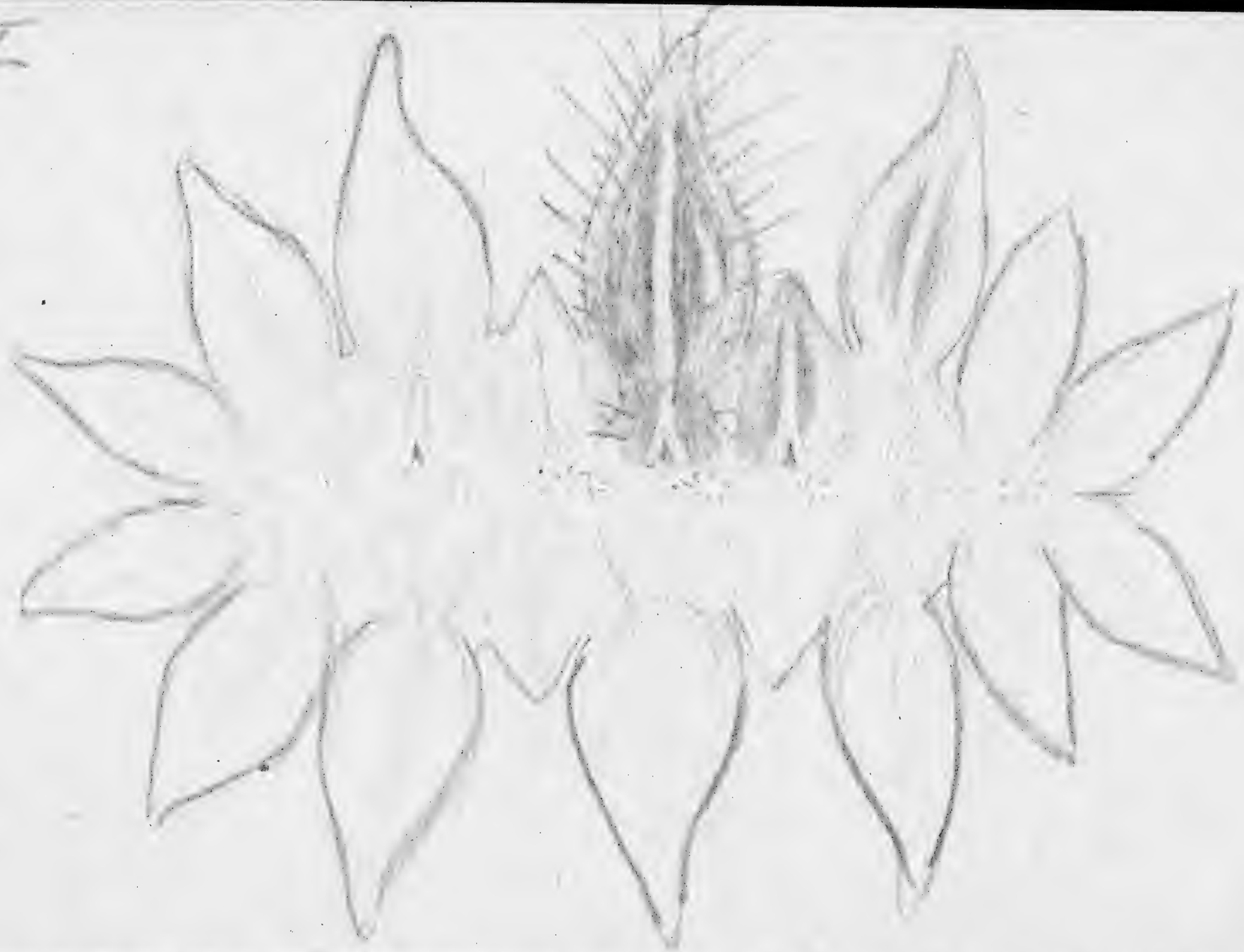
Aug

X-20

Drawn by P.W.K.

579 V Shed Jul 31 by Wide VI
Long horn Longer, slant ness of tail
in proportion 2d 3d 5th curve
backward, each sharpest, 7th front
of pair visible from above, 1st and
8th short, 4th & 6th very short.
Each horn a construction of recent
piece, both pieces of horn with
a terminal seta from a round
tubercle. Horns colored white large
curve outward sharp pale spine,
also from short. Hoofs branched
brown notch receiving very black
at apex, giving the horn the
appearance of pretty brown tips
a few dark flecks in dorsum as
before. On the slant horn the fine
reticulation is plain to almost. (2) pair
3-4 inch horn short, curve with many
short spines and a pale smooth tip
Brown horns darker with a white
stripe on the middle. 3-4 inch
hoofed, tubular. [Piece was different
area at tip of (1) around terminal seta]
Be prong, space of large horns overall
of north side of flank (in cm.)
Only 6 flanges contained by shed

Stage V
X 10



602 = 243 = 9

[illegible] of circulation from Mare Vas [illegible]
and July 9 1876. Simply a [illegible]
16 objects overcoffing, [illegible]
x 7 mm, omitting [illegible]
[illegible] and [illegible]
[illegible] with a broad band
[illegible] from a [illegible]
[illegible]

16 [illegible]
25 2.1 [illegible]
17 2.1 [illegible]

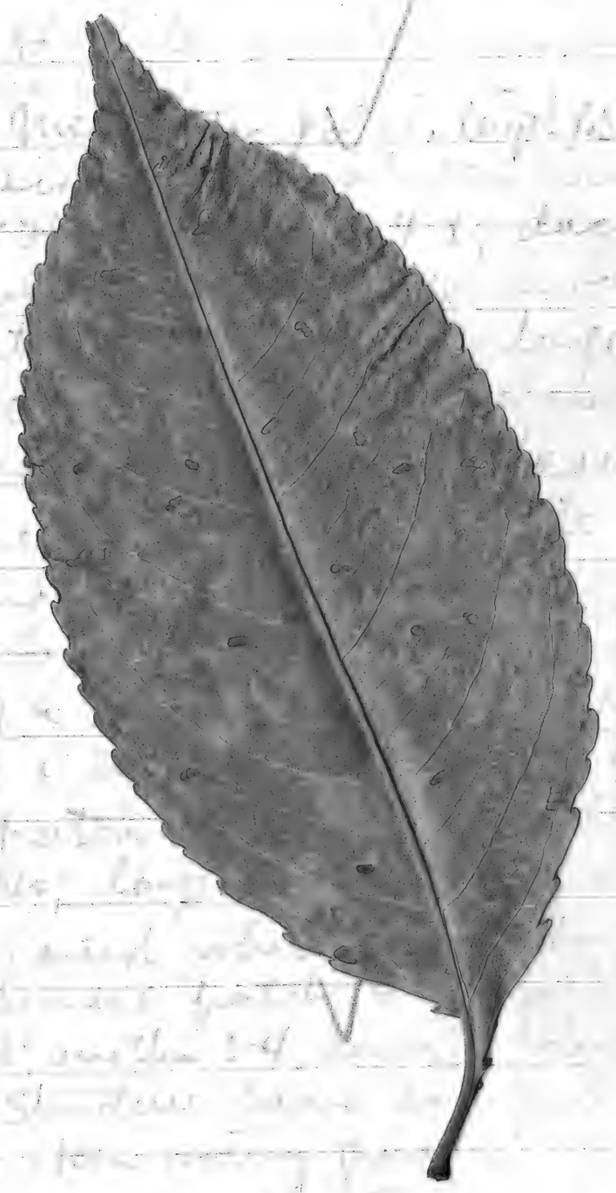
Simply a [illegible]

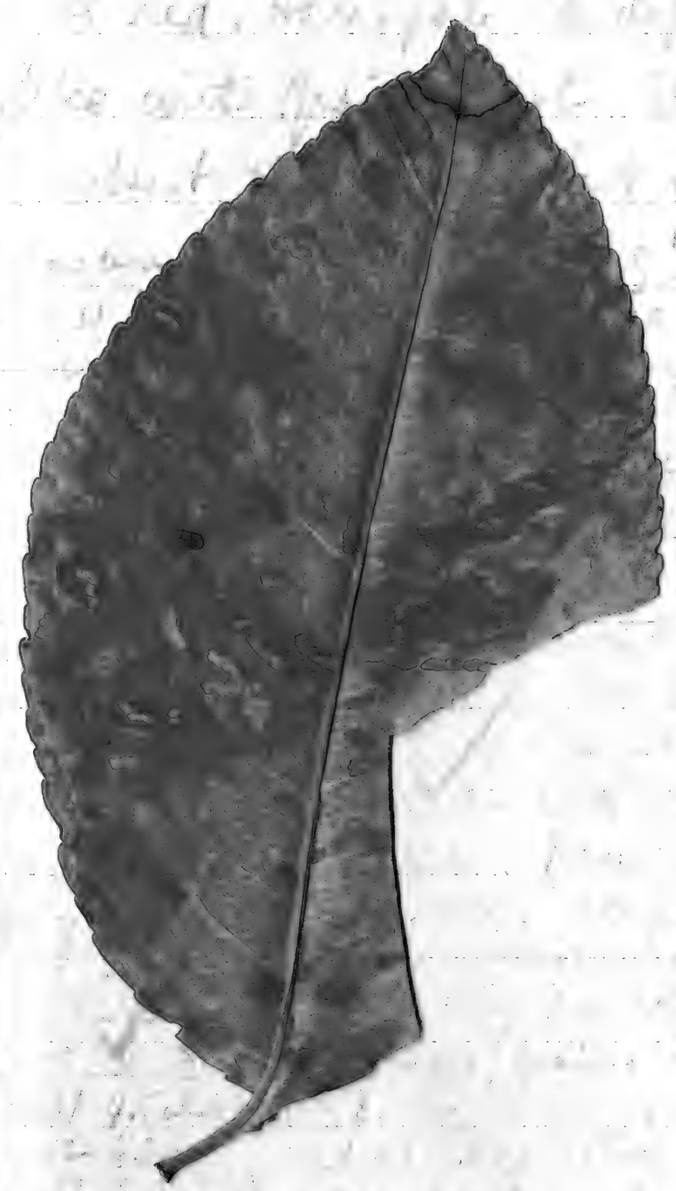
[illegible]
[illegible] bidique
[illegible]
5.0 [illegible]

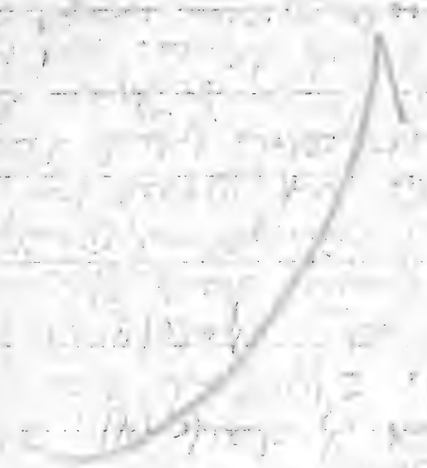
[illegible] only ① is used.
[illegible]

Oct. [illegible] 1877 Harvard Observatory
cat. No. 12770

[illegible] not ① in these comments. HA 1.4 ±
[illegible] Have just had a [illegible]
[illegible] with deep [illegible]
[illegible] Tuberculo. [illegible]
[illegible] is not quite centrally.
[illegible] separate in copy, [illegible]
[illegible] and ①–⑤ [illegible]
Thick, short, just short. Short n 3.4.







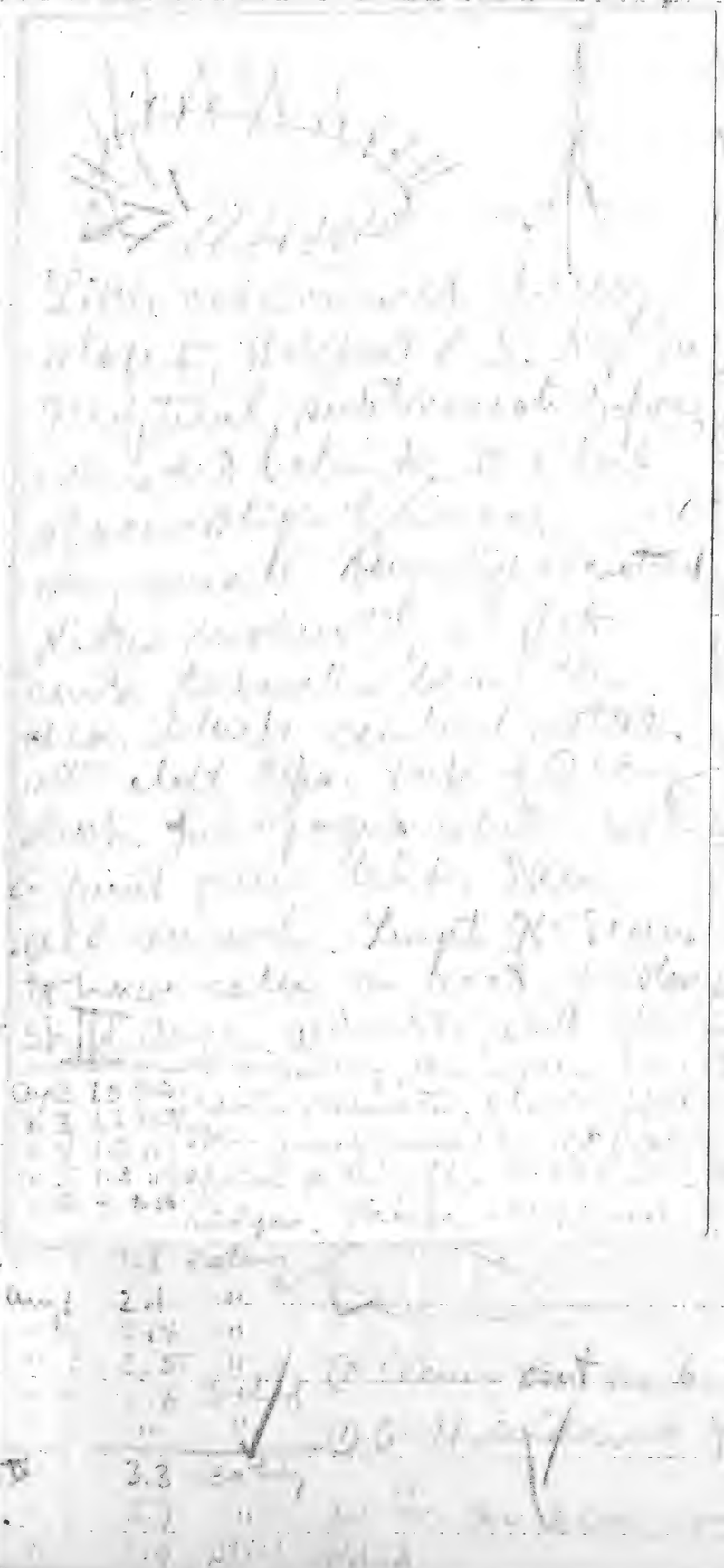
Oct 24 1898 Cranium, Cebuitia

CATNO 15076

=24

I	1 - 1.1	
II	1.1 - 1.6	
III	1.6 - 2.2	
IV	2.2 - 3.2	
V	3.2 - 4.6	
VI	4.6 - 6.6	
VII	6.6 - 9.4	

606 = 247



6488.42
6130.97

357.45
261.17

96.28

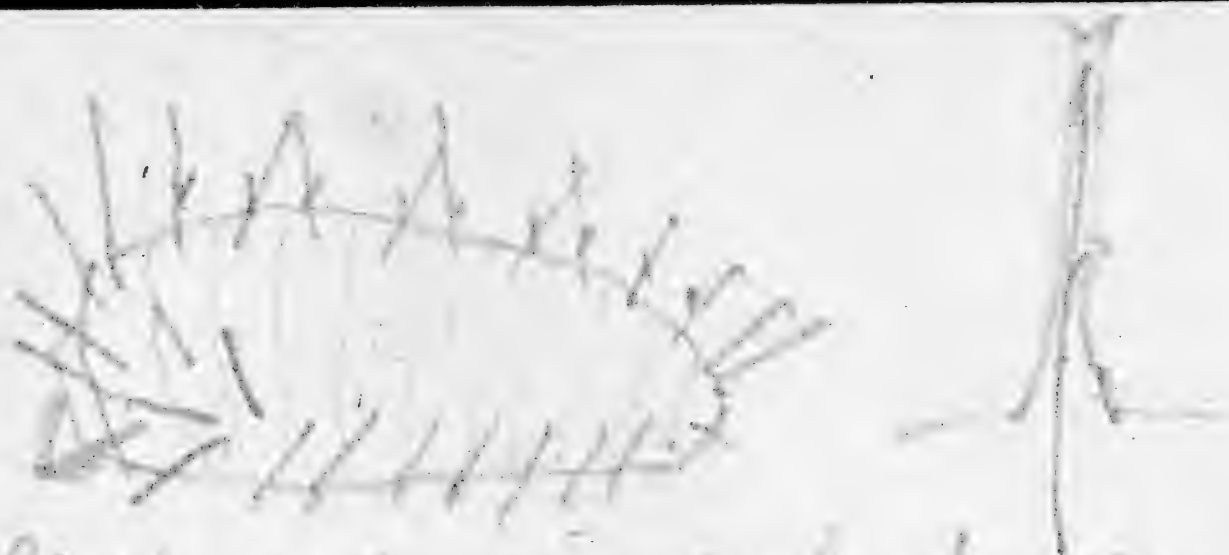
179.17
261.17

17.03
19.20
8.
1.10

45.33

Sept	3	6.5	to shed
"	4	"	"
"	5	"	"
"	6	"	"
"	7	"	"
"	8	7.5	eating
"	9	7.8	"
"	10	8.0	"
"	11	8.3	
"	12	8.	fed
"	13	8.5	eating
"	14	"	"
"	15	8.6	"
"	16	"	"
"	17	MJ	

In stage VII to shed
Regular little female
setae present.
Shed Sept 7 all
perfectly smooth
like mature
no setae VIII



Little cove on wind shearing slope E. Bellport L.I. Aug 96
Elliptical substrment before, rounded behind D & left
Moves a slight distance. ✓
very small very slight notched
Ridge matrix, slight
cone towards head then
clear block centered across
with left tips. Tube of ① very
short. Tube of page which with
a faint green tint. Stem
all smooth. Sept 96 Seems
to have eaten on head. of color
Sh Id Pages ① shorter still attr
Ovp 2 1.0 Sh0 — noting the above
" 3 1.2 " cone remarks, blow off
" 4 1.2 " stem head granular, enfold
" 5 1.3 " afford only the impression
" 6 " to 24 ridges. Tube elongated

Nerved [illegible] [illegible] found pieces whitish
pearl & green cut all
Slide III Aug 7 Pale greenish, elliptical,
Aug 7 1.4 to hide | nearly elongate, tail
" 8 1.4 coloring | notched quadrate. Spin
" 9 1.6 " | blade tipped, also fine
" 10 1.7 to shed | granular unit pale
" 11 " " | [illegible]
" 12 2.1 entirely | cetae in ridges esp (1).
" 13 2.6 " | Of few long [illegible] in
" 14 " to shed | [illegible]
" 15 " " | [illegible]
" 16 2.9 entirely | Slide V Aug 12 Ridges prominent,
" 17 3.1 " | tail quadrate, cetae
" 18 — " | [illegible] blade tipped. Skin
" 19 3.6 entirely | finely granular in few large
" 20 " to shed | areas on the [illegible] between ridges
" 21 " " | 2° of fine on tentacles. Greenish [illegible]
pushes cells, a [illegible] of chitin lies
along (1) ridge, trace only. No [illegible] rings.
Slide VI Aug 15 Elliptical, rather broad tail
quadrate, pale green, of coarse clusters
& faint white line (1) and dense
dot centrally. Skin as in [illegible]
with few granules & also many pale
2.5 spots. Most in ridges and in the
spaces. Setae coarse, blade tipped.
Aug 22 4 entirely | Slide VII Aug 21 Size 606 alone
" 23 4.5 " | B = V Aug 26 5.0 to shed
" 24 4.7 " | Aug 30 5.5 cut
" 25 4.8 " | Slide VIII Aug 29 5.2 Sep 31 6.1 6.5 shed

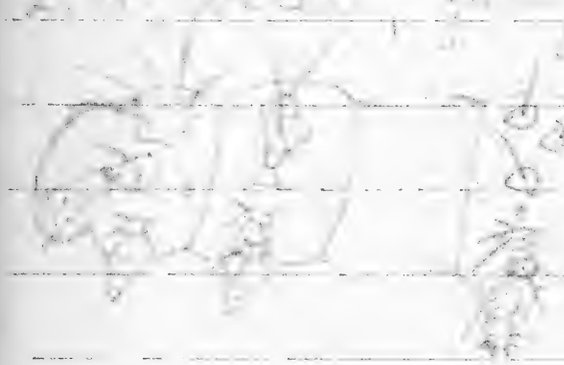
Oct 28 1898 Coranuyes Cerritos

606 = 24 Carnes 15076

606 = 247

Ayse 596 Mayan tribe
linden,
maple, beech leaf
[illegible]

607

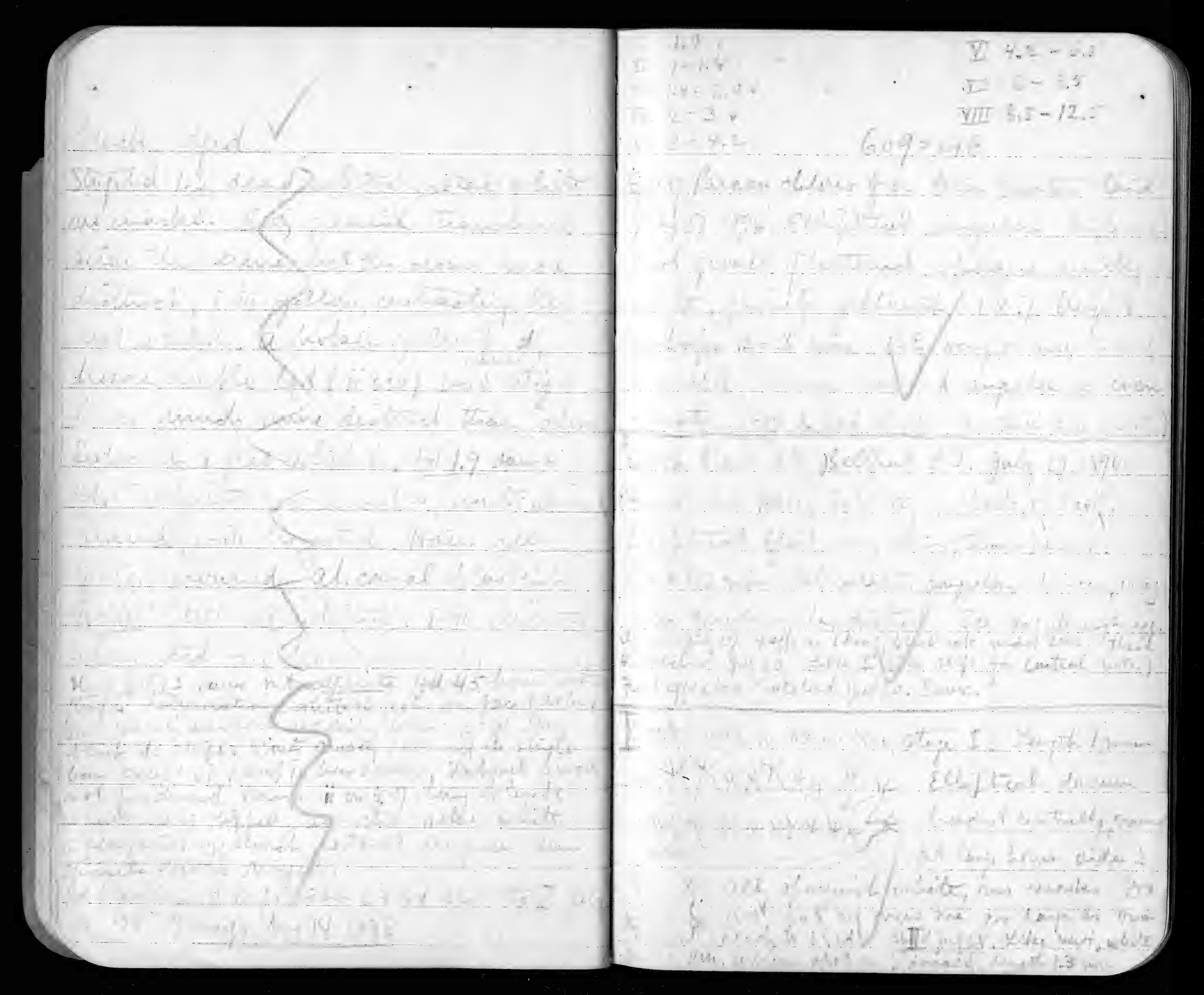


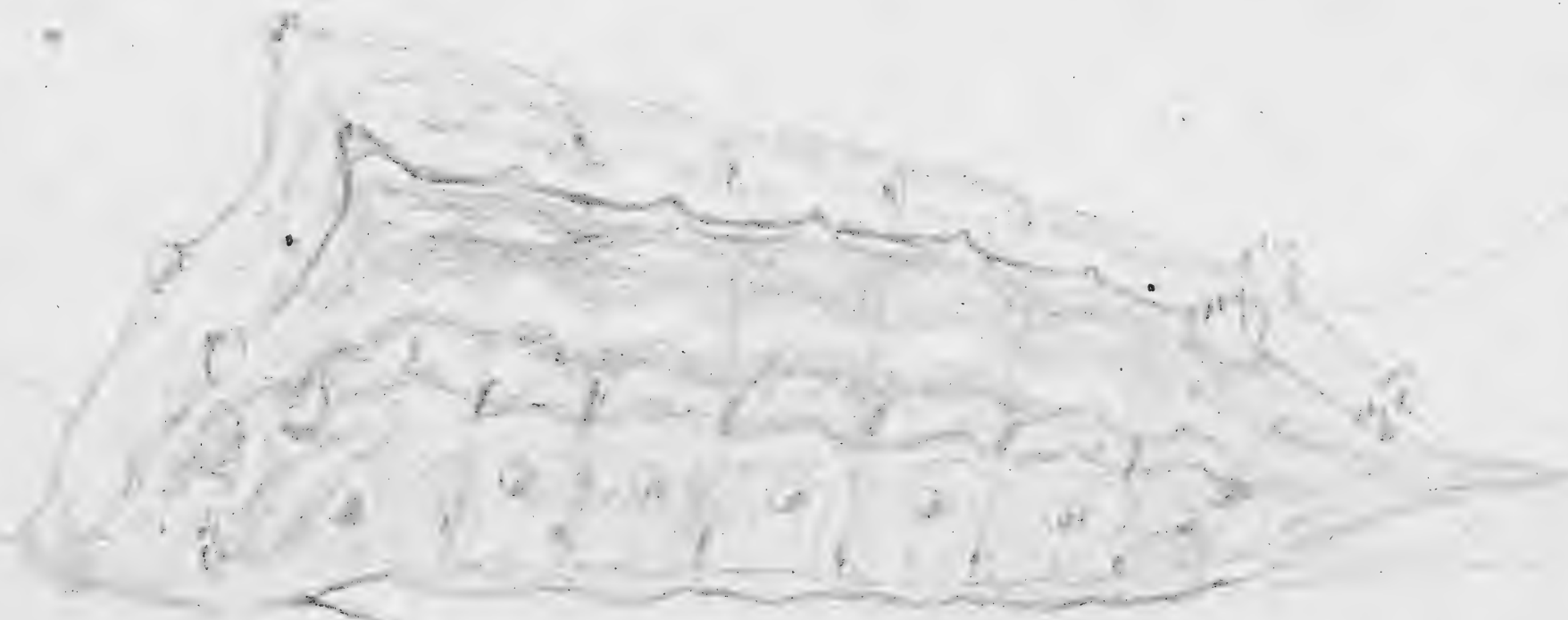
[illegible]	.37	.56	.85	1.27	1.96	2.97	4.5	[illegible]
[illegible]		.5	.75	1.3	1.9	3.0	4.5	

Feb 15

Office 1897 605

[illegible]





609 cont.

Sample in VI, Aug 4, a salmon
fleck in d. pale marbles fast, &
a lump ① 11-13. Side marked
by 4 a 4 fine wavy or broken
pale bands above the lower
shade which includes the S-V
prominent white line. Pectorals
are those strongly, but barred too
long and tail spring & cleft.
VII 8 Healy lower, d. & curved
S-V broken sig. Salmon marbles
throat & S-V edge shaded darker
① 11 bright. Horns short, rounded
tail slightly cleft, spring 8/11
faint dark spots, small & a
whitish band, (4) and dark
marble holes low down on side
a narrow salmon line ① edged
dark above side with 4 salmon
lines. A cutthroat finished
line along S-V edge bordered
above by grandfather's lower. Horns
all dark except ① 11-13, the
long-nose figure large lighter
dark round. Shape of most.

Shed Birth 0

Aug 13	12	eating
" 14	13.5	"
" 15	12.7	"
" 16	14	"
" 17	14.5	"
" 18		"
" 19	16	"
" 20	"	"
" 21	all pink to 8 pin 15.5	

Good pointed tail but large spots on it. Cottage (2) 6-12 skin fairly rather densely spotted as in 3. Otherwise, no dark shades, general color a dull faint peach marked with the usual salmon blue, brighter first 3 in d. of, 5 in back of all dimensions confused

A marsh tortoise has (1) round or (2) fr edge broad pointed edge above by a dark pal line. Bef of (1) small paid (4) marks, elongate (7) round fill blue (8) indicated all Neckish, no other. Here about the large nos. Afire turned in dark (1) 14 & 12 wrinkle, contrasting, Ridge (1) by L to side, (2) non slight fr and back, of faces always contrasting in line fr not reinforced exactly in a straight course. Sheet as usual. Ag. incisures well marked. Aug 13 dorsal salmon marks on 9-12 shade into a grey color. Tail steel cleft to afin with cleft-3 fin, tail

609

Control notes for number of stages and lengths.

Egg hatched July 29-30

July	30	1.2	walking, like I
"	31	"	black head, to shed
Aug	1	1.6	eating, brown in 3-4 like II
"	2	1.8	"
"	3	1.85	" brown in (2) white (1)
"	4	2.0	" like II
"	5	2.1	to shed ✓
"	6	2.3	eating, like III, more than II
"	7	2.6	" brown after 4 hours
"	8	3.0	"
"	9	2.9	to shed ✓
"	10	3.1	eating, like IV
"	11	3.6	"
"	12	4.5	"
"	13	4.4	to shed ✓ 4
"	14	4.4	eating like V
"	15	5.3	"
"	16	6.2	"
"	17	5.9	to shed ✓ 5
"	18	"	"
"	19	6.2	eating, white, brown, spot in tail

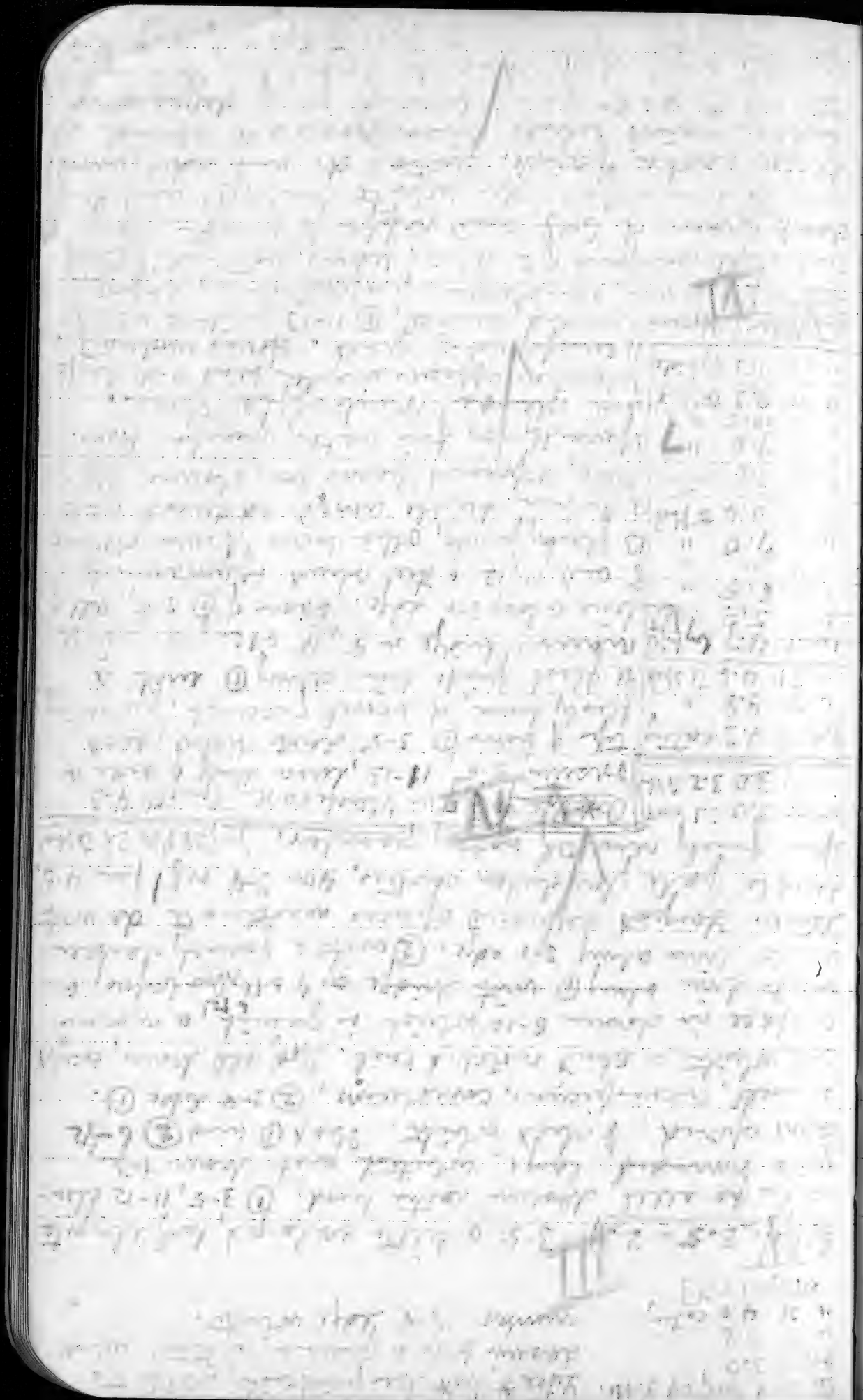
[illegible] 1896 [illegible] VI
[illegible] 4.9 to shed. (Pen [illegible])

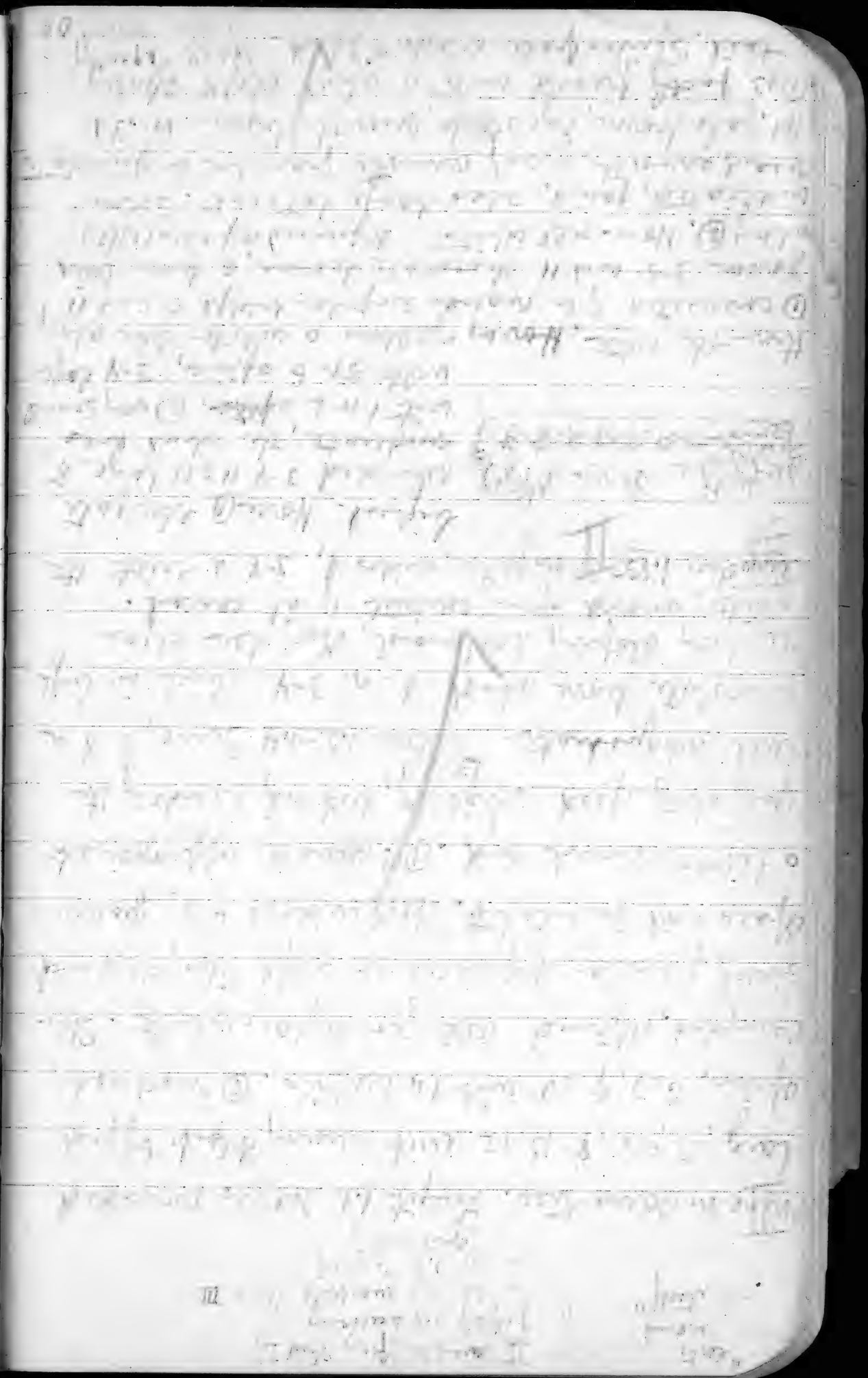
Aug	20	8.5	eating	VI	
"	21	8 ±	"		
"	22	7.6	to shed	✓	6
"	23	"	"		
"	24	8	eating	VII	cattlefe
"	25	10.7	"		
"	26	12	"		
"	27	13	"		7
"	28	10.6	to shed		
"	29-30	"	"		
Sept	1	12	eating	tail stiff, skin	
"	2	15.5	"	grey dull green	
"	3	16	"		
"	4	16.5	"	Sept 7	17.6
"	5-6	18	"		
IX		1.0	1.2	" 8	18.5
				" 9	"
X		1-1.4	1.2-1.7	" 10	20.3
				" 11	15.5
XI		1.4-2	1.7-2.4	to J	
XII		2-3	2.4-3.5		8
XIII		3-4.2	3.5-4.9		
XIV		4.2-6	4.9-7		
XV		6-8.5	7-10		
XVI		8.5-12.5	10-14		

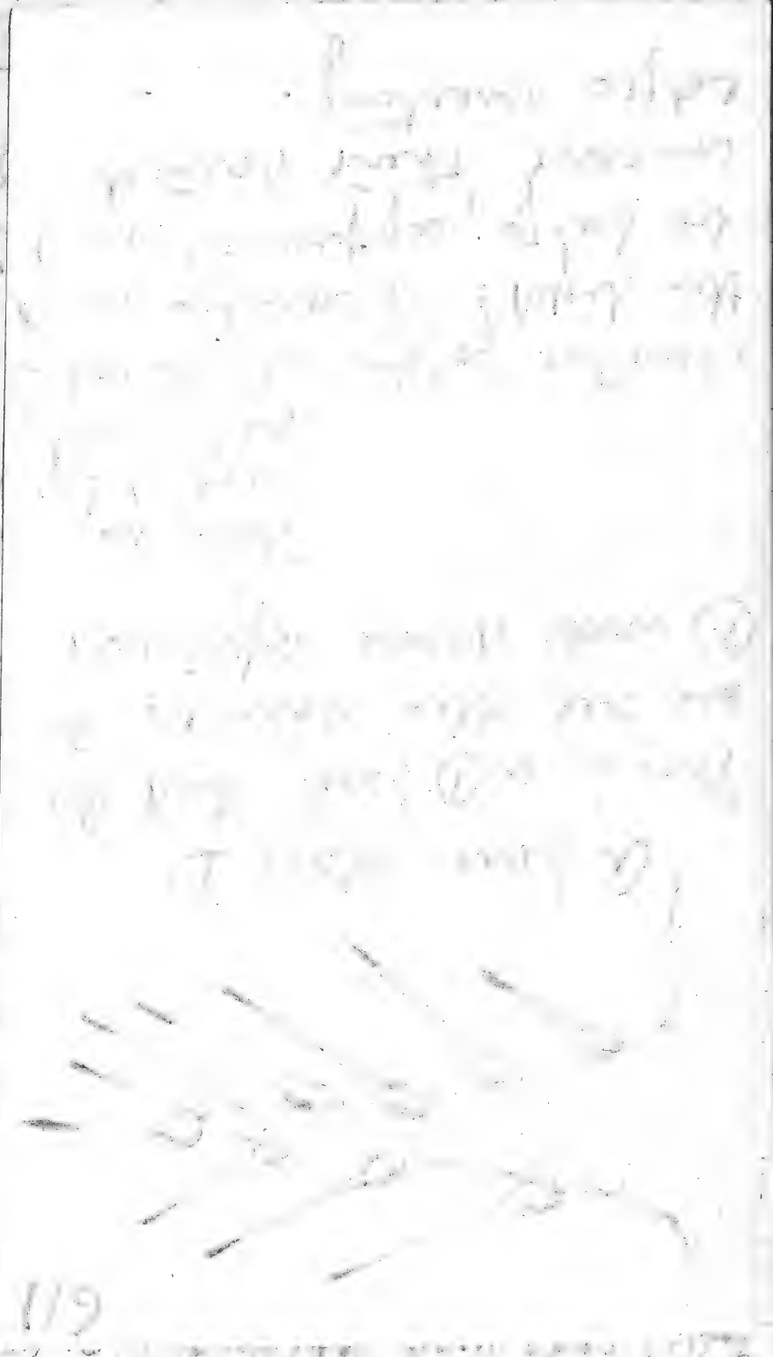
Single egg in individuen
very likely spigtail
Elliptical flat, shining
transparent chagrined
to lens. 1.8 x 1.4 mm
distinctly finely radiate ▽
to ½ mid leg.
Hatched Aug 8 first
burned down like
spigtail

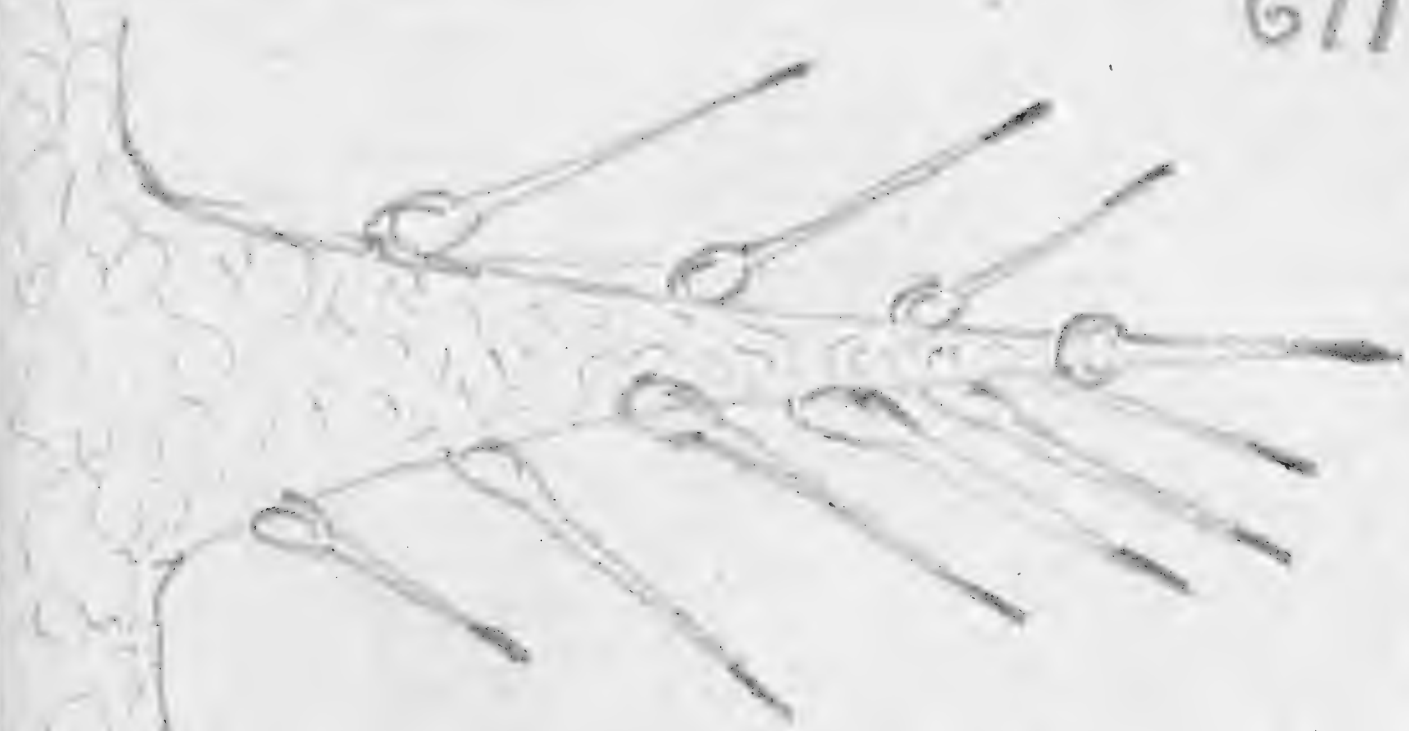
5 reserve Cell. fulriente
and

Inetia amen
on Kupfgrau etc
ablatto









A horn stage D

There is a (1) horn, but they are all the same, the (2) wart more apparent.

Skin is covered by reticulately elevated folds which take the light! Granules must be large, apparent and concave, their raised edges meeting.

Position of 1 day old chick under normal phase of hum stage E

Ant.

I 1.1
II 1.1 - 1.7
III 1.7 - 2.5
IV 2.5 - 3.6
V 3.6 - 5.2
VI 5.2 - 7.4
VII 7.4 - 10
VIII 10 - 15

VI

Spotted [illegible] 2 each on out edge & rest of it, left [illegible], [illegible] & left [illegible] on back edge.

3 ex in this [illegible]

612 = 533

egg from W. D. Kemp, Montclair, N.J.

"Last spotted American, [illegible] imports of Apr. 20, 11, 1902 from wild nests found in trunk of old tree." Hatched May 2 [illegible] 8 all cowed in [illegible] covering 21 hours [illegible] [illegible] (Col. = .61 under 533) [illegible] white, under the [illegible] light, [illegible] & [illegible] long, slate black, [illegible] with 1 ~ 2 white [illegible]. [illegible] spots, 3-8 [illegible] distinct [illegible] & a [illegible] [illegible] pale, slate gray 6 d. [illegible] black [illegible] & white [illegible] [illegible] broken on 6 and at the ends [illegible] numerous fine [illegible] [illegible] gray [illegible], [illegible] very [illegible] black & white [illegible] [illegible] blackish; ii ii round in [illegible] [illegible], iii [illegible], iv & v very [illegible] [illegible] iv [illegible] little [illegible]; vi [illegible], a [illegible]

[illegible] 1st [illegible] in line with [illegible] [illegible] than iv & v, a [illegible] [illegible] [illegible] [illegible] iii; [illegible] [illegible] [illegible] [illegible]

of the species of Lima which commonly grander
rather than reticulata.

Ca Ce.	.5	.8	1.4	2.3	3.9	not. or	↑
Ca "	.5	.8	1.8	2.0	5.6	"	"

D29 99

Dist June 10 1897, Cat. no. 12763 Dist June 16
Isocardia georgica
Dry Bone by
A

Another [illegible] Bronx N. J. Sept 1 1897. [illegible]
[illegible] grass, [illegible] on [illegible], [illegible]
[illegible] with clear [illegible]
[illegible] (Dyar)

C apr 1 1903

614

[illegible] Hyperchiria io [illegible], on grass [illegible]
on a plant [illegible], [illegible]
[illegible] 28 1896.
Head [illegible] squarish [illegible]
[illegible] 7-10, 13 [illegible]
[illegible]

[illegible]

5 and [illegible] larger [illegible]
[illegible] head [illegible]
[illegible]

Acrolophus [illegible]
[illegible] Dec 1 97

Bred f candell
1900 Cat no 15870

615

[illegible] Platarctia parthenos from egg got
by [illegible] at Twin Mt. House N.H.
Stage 5 ([illegible]) black, body [illegible] Hair [illegible]
rather fine, even length & dense, black
[illegible] mixed, [illegible] black [illegible]. Seems
[illegible] had been injured. Went good size.
Stage 6 ([illegible]) had [illegible] black [illegible]
[illegible] gray, with a black [illegible]
[illegible] appearance dark. [illegible]
i-vi [illegible], white, ringed with black
with black [illegible], i-iii & 5, [illegible]
[illegible], all black. Hair rather fine, [illegible]
[illegible] rather [illegible], [illegible] black & white
[illegible] black on 5 and 11. 2 & 3 large [illegible]
white [illegible] on the [illegible], i.e. 3-5, 11-12.
[illegible] the [illegible]. They [illegible]
[illegible] black [illegible]
[illegible]
[illegible]
[illegible]

616

Jayne's Live oak, Miami Fla, Dec 22 1896

Feb 10 naval district, head retarded
[illegible] Daily play school: hair dense, concealing
everything regular, soft, directed
forward, pale gray white with an
under tint of depth; gray white fur
in whole morning, a'ng the 5-v
edy, and in a [illegible] and soft
above the brow. Does live slightly
[illegible], and brow short, on straight
the usual pitch [illegible].
Sunday Dec 23 Hair thus fluffy all over
and white. Back [illegible] though avoid
[illegible] a branch of brow [illegible]
a [illegible] hair, a brow [illegible]
[illegible]. Spiritual [illegible] show white
edge; [illegible] and [illegible] [illegible].
Quit April 27 1897 [illegible] 9

617 Eumenia atala

Larva - on black, [illegible] reddish & lycaenid on fern leaf-compressed [Zamia integrifolia] plant at Miami Fla. Dec 22 1896. Egg ○ bullet like with distinct micropyle white & smooth. Surface with long white bristles, d. 1 mm (see sketch) Color blackish, white, micropyle dark in egg.

Stage I (see sketch)

Young larvae reddish with green tint. 7.5 mm long, yellow spot. Hair black coarse [illegible] body distributed evenly as usual.

Mature larva, slightly flattened, head retracted & forming a rather prominent collar. Anal pl. large rotted, flattened but blending. Segment distinct [illegible] [illegible] prominent 3d wart like fold, and another subst. giving the body a hexagonal nearly regular outline from in front. Deep red shining, 2 and 13 more orange, hair secondary, short rather sparse, blackish. Double large [illegible] in the 3d & 8-9 tubercles. [illegible] yellow [illegible] 2d on 4-10 (see sketch)

Cat. .48 .74 1.1 1.7 2.5 [illegible]
Found .57 .75 1.1 1.7 2.4

618 near Mygrinda ilicifolia

[illegible] Exhausted on [illegible] leaves, red [illegible] and raised in prison. Miami Fla, Dec 22 1896. Smooth in [illegible], 2 drawn in close, skin smooth orange red, irregular greyish abundant d. [illegible] [illegible] darker diffuse band at band. [illegible] small, cocoonless, greyish on the [illegible], [illegible] normal, iv absent, 2 long hair seen on 12. Hair not long, thin, not abundant, not concealing body, slaty gray, in small spreading tufts. Head light orange, 1.73 mm, [illegible], scarcely [illegible] d. Hair finely simply barbuled, [illegible] brown blackish and pale mixed on [illegible] & plumes. 2 and [illegible] a little [illegible] one for the [illegible] band. Hd. 1.73

Stage I Light orange, immaculate, smooth, slightly shiny, seg. distinct; head .3 mm. Setae rather long, single, blackish, i + ii whitish, i-v on abd, then [illegible] of the other whitish tubercle (level only) L. 3.5 mm

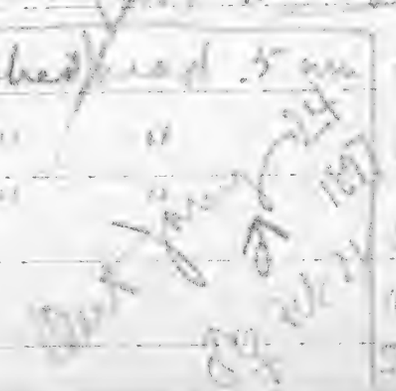
[Stage II Hd. .58 all orange, [illegible] small smooth. Hair fine, not dense, in spreading light slaty gray, mixed with white & pale] Hd. 7 [illegible] (as in No. 619)

Stage III Hd. 1.1 orange immaculate; hair thin gray

619 = 618

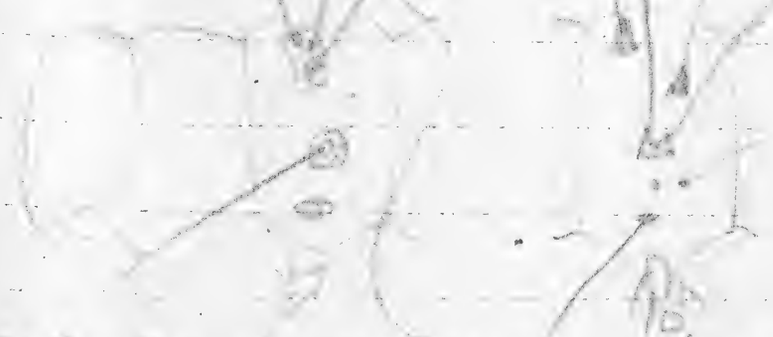
On the ground, Urbana Ill. Dec 22 1896
Hd height nearly covered with pale brown
w. 2H ± wide. 3 rows of thorny, old rounded
ir elevated, r small. Body ground nearly red
a heavy diffuse circle d. band to ii and
smooth iii to [illegible] light of interior just
around the orbicular elevation, making the
body dark with red band (lat). Wrts
unusually dark, rather small. Hairs few
but long, gray. Stripe on vertex united to
eye from i and ii above in 5-12 where
they are darker and thick, almost
divided, giving a appearance of
about ill-consolidated branches.
Length about 20 mm. Venter pale orange.
(Dec 23 die pd for 1 (18) Dec 28 [illegible]

Sample stage I (Shed)	red .5 mm	[illegible]
Shed Dec 24	" "	[illegible]
Shed Dec 29	" "	[illegible]



620 = 618

Egg laid by couple of Sigmatomerida rosea
Urbana Ill. Dec. 24 1896. Found on
food plant of 618 singly on both of leaf.
Ill. of cornstalk, rather flattened above,
narrowed at base O. Smooth, glossy,
light yellow with a very bright
green by reflected light on the reflection side.
Shell white, under ½ inch of lustrous,
semi-crystal, smooth internal sets. Ill. 8 height of
[illegible] in a [illegible] found on the same food
plant. Also 2 egg clusters and 2 [illegible].
Hatched Dec 31 [illegible] the first egg and these
hd as above described.



62AA One of mm Jan 12 hd 2.3 ± cell range
[illegible] diffuse shade iii-vi. Hair all
[illegible] Tufts like spring leaves
two branches! Cut Feb 17 1897 ♀

621

Auctin (Florida?) on the white sand Miami
Fla. Dec 22 1896. Head and all the fur
light red. Body velvety black, the
hairs showing black black with long
smooth hairs like jewels, all large
normal. A series of red dorsal marks
5-12, a narrow red line between i and
a broad effect between ii with a small
dot post. interspinous. Hair coarse, stiff
black, longer post, sparsely long
coarsely barbed. Hds. 3.2± 1.7± mm
Somatic set data reduced to 2 tens, dots for
reg. or 4-11 only. [Sol 13 heads vert 3 mm
5 hind 2±] Shd 2.2 Sh hd 1.7
[Feet dirt, only the upper [illegible]]

May 13 1898

622

T-liver on [illegible] yellow flecked flank
Bony pale green with white dust hairs
sepiling a little post, head retracted also.
Pale green a very faint white
line along i-ii, no marks but
dark, with dust white hair
and a few longer black ones
for i-iii. Skin densely covered with very
short white dust-tipped 2° hairs. Feet
short w at least much retracted.
Setting on a spongy leaf stem, eating it down.

Neuropa [illegible] (1917) Cat. no. - 12501

[illegible] of horns M.1/p.

In K fig plant

Calc.	.56	.93	1.55	2.54	4.3	sat 6/10
Found	.55	.9	1.5	2.5	4.3	

623

No 3 Piscidia erythrina (Jamaica dogwood)

Skippe on jumato bar, main Fla. Dec 7th 1896

Large (working) in house of 2 leaves. Head cordate bilobed, mouth small, rounded, small, head flat before. Greenish white, shagreened, Occiput behind, a line from each eye upward and apart on from aspect of lobe near apex black; w. 4.3 mm. Neck small, no cph nor anal plate; segs smooth centrally, densely wrinkled annulate at post end, 4 or 5 small annulets. Just swell. Appearance yellowish green. Skin translucent light green mostly by transparency, a distinct straight sd yellow line 3-12; dense fine longitudinal yellow stripes confluent in little blotches and along SV fold in an ill defined line. Body almost naked, an abundant fine pile but very short and obsolescent, white. Spiracle pale. Hd 1.5 in folded legs. Hd broad shallow cordate bilobed, black, immaculate, rough.

Pure Illinois bred. Eryciides amyntas

Short white P with large scattered tips IV c V in line on SS ridge (no vi) vii 7th setae on knee leg not swollen Crotchets O

No shield nor plate. Body amoret. translucent pale yellowish green dotted with yellow & a narrow sd and lateral (on SV ridge) yellow lines. Feet concolorous. Pile obsolete, hairs white, pale. Esh slightly hairy concolorous

2.6 2.7

Hd 2.5 Same yellow dot large and thickset. Lines sd and substy (on ridge) a greener d. suspicious line. Forks not showing. No shield. Head rough, punctured.

Egg. Cylindrical crowded above base, flat above & below; 14 sharp narrow vertical plate-like ridges, each hooked at the top so much as to be contiguous, forming a crest around the deep smooth micropyle. Light green, then reddish, the ridges white the crest conspicuous & snowy white. No cross lines to lens. D. .8 height .9 mm

under ½ hr ridge very fine (plate); grooves smooth

Head .55 Dull black. Body concolorous. Pennicaulus other yellow, segs. well marked. Setae invisible lens.

Hd .9 wide shallow cordate, dull black punctured

Bdy greenish shaded with ochreous at each end

seg. faintly annulate post. slightly shiny, translucent with a few yellow dots. Pile sparse minute.

Eggs by ♀ Arctia ♂ Lacentria Miami Florida
Dec 24 1896 (cf 621) Rounded, very slightly
conical, the base flat; smooth shining
pale whitish yellow; diam. 8, height 7 mm
Hatched Jan 7-8 Thick, rather short, head
bilobed, shining black, w. 2 mm Body
brownish, rather darker than usual, the
osh and wart dusky, not contrasting; an
indication of a dark line. Hair coarse,
but curving & not stiff, black, finely spinu-
lated. S-v pale whitish. Warts shining buttons

no real marks in body or lines due to wart ii-i

Shed Jan 17 Head bilobed, shining black, the
lines distinct, w. 6± mm Body light brown
shaded with dark brown narrowly around the
warts and in the incisures. Warts shiny, the
black bean tubercles surrounded by pale rings

head i small, one hair; ii very large, iii-vi of
good size, normal, many haired. On the two
ii and iii high haired, the rest fair sized and
normal; 2 warts above iib. Horn stiff, tubulated, not
very long. Pointed, some black, some white,
those iv-vi all white and rather shorter.
Late the pale space enclosed by i-ii other brown
mottled, because reddish, a row of d. reddish
patches; also along the side between the warts, having
a pale s-d line.
Shed Jan 26 Hd bilobed shiny black, Δ labrum & tarsi
faint whitish; w. 8 mm± Body quite blackish above,
now s-v warts large black but with pale bases
Hair black, white & short s-v a few long black ones
post. No lines seen on body. Later color forets
but a distinct dorsal band as far as ii, over rend
iii-v slightly reddish, also behind i (i.e. between warts) but
no lines or bars.

625

[illegible] micro. in a thin loose web on top
[pure white]
of [illegible] of 6n plants. (Mus. cat. no. 12629
taken [illegible] emerging [illegible] pupa). Legs slender,
delicate, light green, [illegible] 3 [illegible] by
[illegible] the [illegible] (-) [illegible]
ed. A [illegible] [illegible] a faint pale red
[illegible]
[illegible]
[illegible]
[illegible]
Dorsal [illegible] [illegible] darkened.
Setae [illegible] the [illegible]
by [illegible]
dark [illegible] [illegible] (the alcohol
[illegible]) Setae [illegible]. A [illegible] band
strongly [illegible]
[illegible]